

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : OZIN et al.  
Appl. No. :  
Filed : September 12, 2003  
Title : METHOD OF SELF-ASSEMBLY AND OPTICAL APPLICATIONS  
OF CRYSTALLINE COLLOIDAL PATTERNS ON SUBSTRATES

Grp./A.U. :  
Examiner :

Docket No.: 14432DIV

Honorable Assistant Commissioner of Patents  
Alexandria, VA 22313-1450

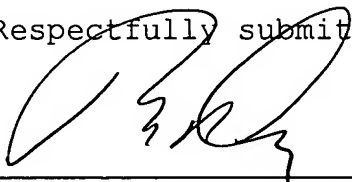
Sir:

PTO CUSTOMER NO. 000293

INFORMATION DISCLOSURE STATEMENT

Submitted herewith is a copy of an Information Disclosure Statement and listing of references which have been filed by applicants in parent applications Serial No. 09/977,254. Copies of the documents referenced may be found in the parent application file.

Respectfully submitted,



Ralph A. Dowell  
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FILE COPY

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Ozin et al.  
Appl. No. : 09/977,254  
Filed : 10/16/2001  
Title : METHOD OF SELF-ASSEMBLY AND OPTICAL  
APPLICATIONS OF CRYSTALLINE COLLOIDAL PATTERNS  
ON SUBSTRATES

Grp./A.U. : 1772  
Examiner :

Docket No. : 13786

Honorable Assistant Commissioner of Patents  
Washington, D.C. 20231

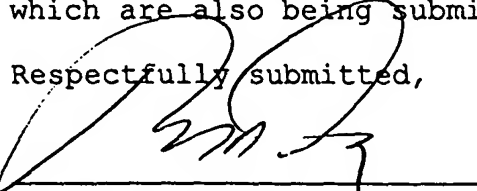
Sir:

INFORMATION DISCLOSURE STATEMENT

In accordance with 37 C.F.R., §§ 1.97-1.99, applicant submits the following information which may be of interest to the examiner in charge of the above referenced application for patent. Copies of the references listed on the attached Form PTO-1449, List of Prior Art Cited by Applicant, are attached.

Also being submitted herewith is a copy of the European Patent Office Search Report with respect to PCT/CA01/01436 which shows the relevancy of the listed patent which are also being submitted.

Respectfully submitted,



Ralph A. Dowell  
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Date: August 9, 2002

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FORM PTO-1449  
(Rev. 7-80)U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICEAtty. Docket No.  
13786Serial No.  
09/977,254**LIST OF PRIOR ART CITED BY APPLICANT**  
(Use several sheets if necessary)

APPLICANT Ozin et al.

FILING DATE  
10/16/2001GROUP  
1772

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER							DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	AA	4	7	2	8	5	9	1	03/01/88	Clark et al.			
	AB												
	AC												
	AD												

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER							DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
													YES	NO
	AE	1	0	8	1	5	1	3	08/21/00	EP			X	
	AF	1	0	3	0	1	9	6	01/31/00	EO			X	
	AG	0	0	1	0	0	4	0	08/11/99	WO			X	

## OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

	AH		Gates, B. et al.: "Self-Assembly of Meso- and Nanoparticles into 3-D Ordered Arrays and Its Applications", Organic/Inorganic Hybrid Materials II, San Francisco, CA, April 5-9, 1999, Materials Research Society Symposium Proceedings, vol. 576, April 5, 1999, pgs. 149-154, XP-000897904.
	AI		Aizenberg et al.: "Patterned Colloidal Deposition Controlled by Electrostatic and Capillary Forces", Physical Review Letters, vol. 84, no. 13, March 27, 2000, pgs. 2997-3000, XP-001074766.
	AJ		Chen, et al.: "Selective Self Organization of Colloids on Patterned Polyelectrolyte Templates", Langmuir, vol. 16, 2000, pgs. 7825-7834, XP-001074759.
	AK		Oleschuk et al.: "Trapping of Bead-Based Reagents within Microfluidic Systems", Anal. Chem., vol. 72, 2000, pgs. 585-590, XP-001074756.
	AL		Kim et al.: "Two- and Three-Dimensional Crystallization of Polymeric Microspheres by Micromolding in Capillaries", Advanced Materials, VCH Verlagsgesellschaft, Weinheim, DE, vol. 8, no. 3, March 1, 1996, pgs. 245-247, XP-000558255.
	AM		Chomski E. et al.: "Panoscopic Silicon - A Material for All Length Scales", Advanced Materials, VCH Verlagsgesellschaft, Weinheim, DE, vol. 12, no. 14, July 19, 2000, pgs. 1071-1078, XP-000959392.
	AN		Deckman H.W. et al.: "Macromolecular Self-Organized Assemblies", American Vacuum Society, J. Vac. Sci. Technol., B 6(1), Jan./Feb. 1988, pgs. 333-336.

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 602; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

FORM PTO-1449  
(Rev. 7-80)U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICEAtty. Docket No.  
13786Serial N.  
09/977,254**LIST OF PRIOR ART CITED BY APPLICANT**  
(Use several sheets if necessary)

APPLICANT Ozin et al.

FILING DATE  
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## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	AO						
	AP						
	AQ						
	AR						

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
	AS							

## OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

	AT	Burmeister et al.: "From Mesoscopic to Nanoscopic Surface Structures: Lithography with Colloid Monolayers", Advanced Materials, vol. 10, no. 6, 1998, pgs. 495-497.
	AU	Yang et al.: "Hierarchically Ordered Oxides", Science, vol. 282, December 18, 1998, pgs. 2244-2246.
	AV	Lin et al.: "Entropically Driven Colloidal Crystallization on Patterned Surfaces", The American Physical Society, Physical Review Letters, vol. 85, no. 8, August 21, 2000, pgs. 1770-1773.
	AW	Hayward et al.: "Electrophoretic Assembly of Colloidal Crystals with Optically Tunable Micropatterns", Macmillian Magazines Ltd., Nature, vol. 404, March 2, 2000, pgs. 56-58.
	AX	Chen et al.: "Selective Self-Organization of Colloids on Patterned Polyelectrolyte Templates", Langmuir, vol. 16, no. 20, 2000 American Chemical Society, September 8, 2000, pgs. 7825-7834.
	AY	Yin et al.: "A Self-Assembly Approach to the Formulation of Asymmetric Dimers from Monodispersed Spherical Colloids", J. Am. Chem. Soc., vol. 123, 2001 American Chemical Society, January 9, 2001, pgs. 771-772.
	AZ	Lu et al.: "A Self-Assembly Approach to the Fabrication of Patterned, Two-Dimensional Arrays of Microlenses of Organic Polymers", Advanced Materials, vol. 13, no.1, January 5, 2001, pgs. 34-37.
	BA	Yin et al.: "Assembly of Monodispersed Spherical Colloids into One-Dimensional Aggregates Characterized by Well-Controlled Structures and Lengths", Journal of Chemistry Materials Communication, The Royal Society of Chemistry, March 2001, pgs. 987-989.
	BB	Yang et al.: "Patterning Porous Oxides Within Microchannel Networks", Advanced Materials, vol. 13, no. 6, March 2001, pgs. 427-431.

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APPLICANT Ozin et al.

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1772**U.S. PATENT DOCUMENTS**

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	BC						
	BD						
	BE						
	BF						

**FOREIGN PATENT DOCUMENTS**

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
	BG							

**OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)**

	BI	Jiang et al.: "Single-Crystal Colloidal Multilayers of Controlled Thickness", American Chemical Society, Chem. Mater., vol. 11, 1999, pgs. 2132-2140.
	BJ	Jiang et al.: "The Fabrication and Bandgap Engineering of Photonic Multilayers", Advanced Materials, vol. 13, No. 6, March 16, 2001, pgs. 389-393.
	BK	Park et al.: "Crystallization of Mesoscale Particles Over Large Areas", Advanced Materials, vol. 10, no. 13, 1998, pgs. 1028-1031.
	BL	Blaaderen et al.: "Template-directed Colloidal Crystallization", Nature, vol. 385, January 23, 1997, pgs. 321-324.
	BM	Dimitrov et al.: "Continuous Convective Assembling of Fine Particles into Two-Dimensional Arrays on Solid Surfaces", Langmuir, vol. 12, 1996, pgs. 1303-1311.

EXAMINER

DATE CONSIDERED

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